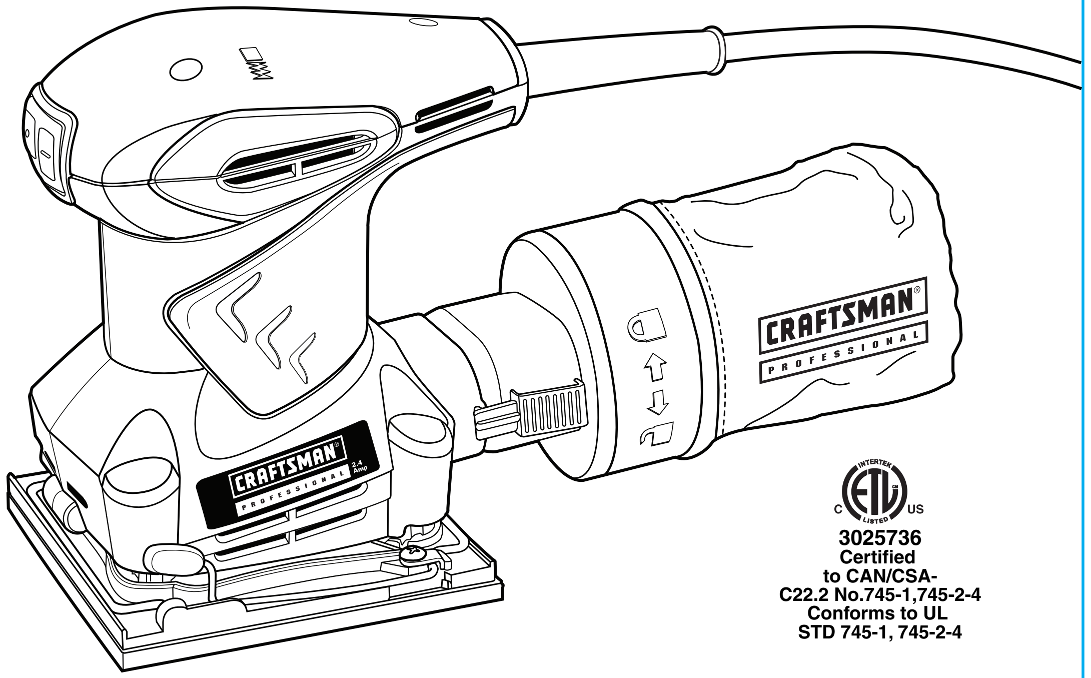
Operator's Manual

CRAFTSMAN®
PROFESSIONAL

2.4 Amp 1/4 Sheet
Finishing Sander

Model No. 172.27670



3025736
Certified
to CAN/CSA-
C22.2 No.745-1,745-2-4
Conforms to UL
STD 745-1, 745-2-4

Double Insulated

- **WARRANTY**
- **SAFETY**
- **UNPACKING**
- **DESCRIPTION**
- **ASSEMBLY**
- **OPERATION**
- **MAINTENANCE**

CAUTION: Read, understand and follow all Safety Rules and Operating Instructions in this manual before using this product.

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.
Visit our Craftsman® website: www.sears.com/craftsman

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ONE YEAR FULL WARRANTY ON CRAFTSMAN® PROFESSIONAL TOOL

If this Craftsman Professional Tool fails due to a defect in material or workmanship within one year from the date of purchase, **RETURN IT TO ANY SEARS STORE OR PARTS AND REPAIR CENTER OR OTHER CRAFTSMAN OUTLET IN THE UNITED STATES FOR FREE REPAIR (OR REPLACEMENT IS REPAIR PROVES IMPOSSIBLE).**

This warranty does not include expendable parts such as lamps, batteries, bits, papers or blades.

This warranty gives you specific legal rights, and you may have other rights, which vary from state to state.

Sears, Roebuck and Co., Hoffman Estates, IL 60179

SAVE THESE INSTRUCTIONS!
READ ALL INSTRUCTIONS!

⚠ **WARNING: Some dust created by using power tools contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.**

SAFETY SYMBOLS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and the explanations with them, deserve your **careful attention and understanding.** The symbol warnings **DO NOT** by themselves eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

⚠ **WARNING: BE SURE to read and understand all safety instructions in this manual, including all safety alert symbols such as "DANGER", "WARNING" and "CAUTION", BEFORE using this tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.**

SYMBOL	MEANING
⚠	**SAFETY ALERT SYMBOL: Indicates DANGER, WARNING, OR CAUTION. May be used in conjunction with other symbols or pictographs.**
⚠ DANGER	**Failure to obey this safety warning WILL result in death or serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.**
⚠ WARNING	**Failure to obey this safety warning CAN result in death or serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.**
⚠ CAUTION	**Failure to obey this safety warning MAY result in personal injury to yourself or others or property damage. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.**

DAMAGE PREVENTION AND INFORMATION MESSAGES

These inform user of important information and/or instructions that could lead to equipment or other property damage if not followed. Each message is preceded by the word "NOTE:" as in the example below:

NOTE: Equipment and/or property damage may result if these instructions are not followed.

WEAR YOUR
SAFETY GOGGLES
FORESIGHT IS BETTER THAN
NO SIGHT

⚠ **WARNING: The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, ALWAYS wear safety goggles or safety glasses with side shield and a full-face shield when needed. We recommend a Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shield, available at Sears Stores or other Craftsman Outlets.**

SAFETY INSTRUCTIONS

⚠ WARNING: BE SURE to read and understand all instructions in this manual before using this power tool. Failure to follow all instructions may result in electric shock, fire and / or serious personal injury.

WORK AREA SAFETY

1. **Keep your work area clean and well lit.** Cluttered workbenches and dark areas invite accidents.
2. **DO NOT operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children and visitors away while operating a power tool.** Distractions can cause you to lose control.
4. **Make your workshop childproof** with padlocks and master switches. Lock tools away when not in use.
5. **MAKE SURE the work area has ample lighting** so you can see the work and that there are no obstructions that will interfere with safe operation **BEFORE** using your power tool.

PERSONAL SAFETY

1. **KNOW your power tool.** Read the operator's manual carefully. Learn the tool's applications and limitations, as well as the specific potential hazards related to this tool.
2. **STAY ALERT,** watch what you are doing and use common sense when operating a power tool.
3. **DO NOT** use tool while tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
4. **DRESS properly. DO NOT** wear loose clothing or jewelry. Pull back long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothing, or long hair can be caught in moving parts. Air vents often cover moving parts and should also be avoided.
5. **AVOID** accidental starting. Be sure switch is in "OFF" position before plugging in. **DO NOT** carry tools with your finger on the switch. Carrying tools with your finger on the switch or plugging in tools that have the switch in the "ON" position invites accidents.
6. **REMOVE** adjusting keys or blade wrenches before turning a tool **"ON"**. A wrench that is left attached to a rotating part of a tool may result in personal injury.
7. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
8. **ALWAYS SECURE YOUR WORK.** Use clamps or a vise to hold work when practical. It is safer than using your hand and frees both hands to operate tool.
9. **USE SAFETY EQUIPMENT. Always** wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

SAFETY INSTRUCTIONS cont.

TOOL USE AND CARE SAFETY

⚠ WARNING: BE SURE to read and understand all instructions before operating this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

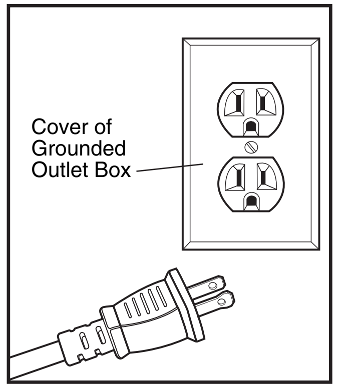
1. **ALWAYS use clamps or other practical ways to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
2. **DO NOT force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
3. **DO NOT use the tool if switch does not turn it "On" or "Off".** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
4. **DISCONNECT the plug from the power source before making any adjustments, changing accessories or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
5. **STORE idle tools out of the reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
6. **MAINTAIN tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.
7. **Keep sandpaper clean**, **remove excess build-up of dust and debris**. Replace sandpaper when worn, this will provide better sanding results.
8. **Punch holes in sandpaper** with template included. Keep holes in sandpaper, cushion and platen clear of dust and debris so the dust collection system works properly.
9. **CHECK for misalignment or binding of moving parts, breakage of parts,** and any other condition that may affect the tool's operation. **If damaged,** have the tool serviced before using. Many accidents are caused by poorly maintained tools.
10. **USE ONLY accessories that are recommended for this tool.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

⚠ WARNING: Empty dust bag before storage to help prevent possible fire hazard, especially when resin coating or linseed oil finishes have been sanded.

ELECTRICAL SAFETY

⚠ WARNING: Do not permit fingers to touch the terminals of plug when installing or removing the plug from the outlet.

1. **Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way.** If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a **qualified electrician** to install a polarized outlet. Do not change the plug in any way.



SAFETY INSTRUCTIONS cont.

ELECTRICAL SAFETY

2. Double insulation ⧈ eliminates the need for the three-wire grounded power cord and grounded power supply system. Applicable only to Class II (double-insulated) tools. **This tool is a double insulated tool.**

> ⚠ **WARNING: Double insulation DOES NOT take the place of normal safety precautions when operating this tool.**

3. **BEFORE** plugging in the tool, **BE SURE** that the outlet voltage supplied is within the voltage marked on the tool's data plate. **DO NOT** use "AC only" rated tools with a DC power supply.
4. **AVOID body contact with grounded surfaces**, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded.
5. **DO NOT expose power tools to rain or wet conditions or use power tools in wet or damp locations.** Water entering a power tool will increase the risk of electric shock.
6. **INSPECT tool cords for damage.** Have damaged tool cords repaired at a **Sears Service Center**. **BE SURE** to stay constantly aware of the cord location and keep it well away from moving parts.
7. **DO NOT abuse the cord. NEVER use the cord to carry the tool by or to pull the plug from the outlet**. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.

EXTENSION CORDS

Use a proper extension cord. ONLY use cords listed by Underwriters Laboratories (UL). Other extension cords can cause a drop in line voltage, resulting in a loss of power and overheating of tool. For this tool an AWG (American Wire Gauge) size of a least 14-gauge is recommended for an extension cord of 25-ft. or less in length. Use 12-gauge for an extension cord of 50-ft. **Extension cords 100-ft. or longer are not recommended.** Remember, **a smaller wire gauge size has greater capacity than a larger number** (14-gauge wire has more capacity than 16-gauge wire; 12-gauge wire has more capacity than 14-gauge). When in doubt use the smaller number. When operating a power tool outdoors, use an outdoor extension cord marked "W-A" or "W". These cords are rated for outdoor use and reduce the risk of electric shock.

> ⚠ **CAUTION: Keep the extension cord clear of the working area. Position the cord so that it will not get caught on lumber, tools or other obstructions while you are working with a power tool.**

> ⚠ **WARNING: Check extension cords before each use. If damaged replace immediately. Never use tool with a damaged cord since touching the damaged area could cause electrical shock, resulting in serious injury.**

SAFETY INSTRUCTIONS cont.

SAFETY SYMBOLS FOR YOUR TOOL

The label on your tool may include the following symbols.

V	Volts
A	Amps
Hz	Hertz
W	Watts
min	Minutes
∿	Alternating current
⎓	Direct current
n_o	No-load speed
⧈	Class II construction, Double Insulated
RPM	Revolutions per minute
SPM	Strokes per minute
OPM	Orbits per minute
⚠	Indicates danger, warning or caution. It means attention! Your safety is involved.

SERVICE SAFETY

1. **If any part of this tool is missing or should break, bend, or fail in any way; or should any electrical component fail to perform properly: SHUT OFF** the power switch and remove the tool's plug from the power source and have the missing, damaged or failed parts replaced **BEFORE** resuming operation.
2. **Tool service must be performed only at a Sears Service Center.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
3. **When servicing a tool, use only identical replacement parts. Follow instructions in the maintenance section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

SAFETY RULES FOR POWER SANDERS

1. **HOLD TOOL by insulated gripping surfaces** when sanding where tool may contact hidden wiring, such as walls, floors, or its own power cord. Contact with a "live" wire will make exposed metals parts of the tool "live" and shock the operator.
2. **INSPECT FOR AND REMOVE** all nails, screws, staples or any embedded pieces of metal from surface to be sanded. These protrusions could damage the sandpaper, the cushion of the sander and cause loss of control. Following this rule will reduce the risk of serious personal injury and damage to the sander.
3. **NEVER use this or any power sander for wet sanding or liquid polishing.** Failure to follow this rule will increase the risk of electric shock.
4. **ALWAYS clamp the workpiece** securely so it will not move under the sander. Unsecured work could be thrown towards the operator, causing injury.
5. **DO NOT force the sander.** The weight of the sander supplies adequate pressure. Let the sander and the grit on the sandpaper do the work.
6. **DO NOT sand in any one place for too long.** The sander's rapid action may remove too much material and make the surface uneven.

⚠ WARNING: Some dust created by using power tools contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:

- **Lead from lead-based paints.**
- **Crystalline silica from bricks and cement and other masonry products.**
- **Arsenic and chromium, from chemically treated lumber.**

Your risk from these exposures varies, depending upon how often you do this type of work. To reduce your exposure to these chemicals:

- **Work in a well-ventilated area.**
- **Work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.**

Avoid prolonged contact with dust from power sanding, sawing, grinding, drilling and other construction activities. Wear protective clothing and wash exposed areas with soap and water. Allowing dust to get into your mouth, eyes, or lay on the skin may promote absorption of harmful chemicals.

⚠ WARNING: Use of this tool can generate and/or disburse dust, which may cause serious and permanent respiratory or other injury. Always use NIOSH/OSHA approved respiratory protection appropriate for the dust exposure. Direct particles away from face and body.

⚠ WARNING: Collected sanding dust from sanding surface coatings (polyurethane, linseed oil, etc.) can self-ignite in sander dust bag or elsewhere and cause fire. To reduce risk, empty dust bag frequently and strictly follow sander manual and coating manufacturer's instructions.

⚠ CAUTION: When working on metal surfaces, DO NOT use the dust bag or a vacuum cleaner because sparks are generated. Wear safety glasses and a dust mask. Due to the danger of fire, do not use your sander to sand magnesium surfaces. Do not use for wet sanding.

SANDING PAINTS

SANDING LEAD BASED PAINT is **NOT RECOMMENDED** due to the difficulty of controlling the contaminated dust. The greatest danger of lead poisoning is to children and pregnant women.

Since it is difficult to identify whether or not a paint contains lead without a chemical analysis, we recommend the following precautions when sanding any paint:

- **NO** children or pregnant women should enter the work area where the paint sanding is being done until all clean up is completed.
- A dust mask or respirator should be worn by all persons entering the work area. The filter should be replaced daily, or whenever (if) the wearer has difficulty breathing.

NOTE: Only those dust masks suitable for working with lead paint dust and fumes should be used. Ordinary painting masks do not offer this protection. See your local hardware dealer for the proper (NIOSH approved) mask.

- **NO EATING, DRINKING OR SMOKING** should be done in the work area to prevent ingesting contaminated paint particles. Workers should wash and clean up **BEFORE** eating, drinking or smoking. Articles of food, drink, or smoking should **NOT** be left in the work area where contaminated dust would settle on them.
- Paint should be removed in such a manner as to minimize the amount of dust generated.
- Areas where paint removal is occurring should be sealed with plastic sheeting of 4 mils thickness.
- Sanding should be done in a manner to reduce tracking of paint dust outside the work area.
- All surfaces in the work area should be vacuumed and thoroughly cleaned daily for the duration of the sanding project. Vacuum filter bags should be changed frequently.
- Plastic drop cloths should be gathered up and disposed of along with any dust chips or other removal debris. They should be placed in sealed refuse receptacles and disposed of through regular trash pick-up procedures. During clean up, children and pregnant women should be **KEPT AWAY** from the immediate work area.
- All toys, washable furniture and utensils used by children should be washed thoroughly before being used again.

ADDITIONAL RULES FOR SAFE OPERATION

⚠ WARNING: BE SURE to read and understand all instructions. Failure to fllow all instructions listed below may result in electric shock, fire and/or serious personal injury.

1. **Know your power tool. Read operator's manual carefully.** Learn the applications and limitations, as well as the specific potential hazards related to this tool. Following this rule will reduce the risk of electric shock, fire or serious injury.
2. **ALWAYS wear safety glasses or eye shields when using this tool.** Everyday eyeglasses have only impact-resistant lenses; they are NOT safety glasses.
3. **PROTECT your lungs.** Wear a face mask or dust mask if the operation is dusty.
4. **PROTECT your hearing.** Wear appropriate personal hearing protection during use. Under some conditions noise from this product may contribute to hearing loss.
5. **ALL VISITORS AND BYSTANDERS MUST** wear the same safety equipment that the operator of the tool wears.
6. **INSPECT the tool cords periodically and if damaged have them repaired at your nearest Sears Service Center. ALWAYS BE AWARE of the cord location.**
7. **ALWAYS check the tool for damaged parts.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine if it will operate properly and perform its intended function. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. A guard or other part that is damaged should be properly repaired or replaced at a Sears Service center.

SAFETY INSTRUCTIONS cont.

ADDITIONAL RULES FOR SAFE OPERATION cont.

8. **SAVE THESE INSTRUCTIONS. Refer to them frequently and use them to instruct others who may use this tool. If someone borrows this tool, make sure they have these instructions also.**

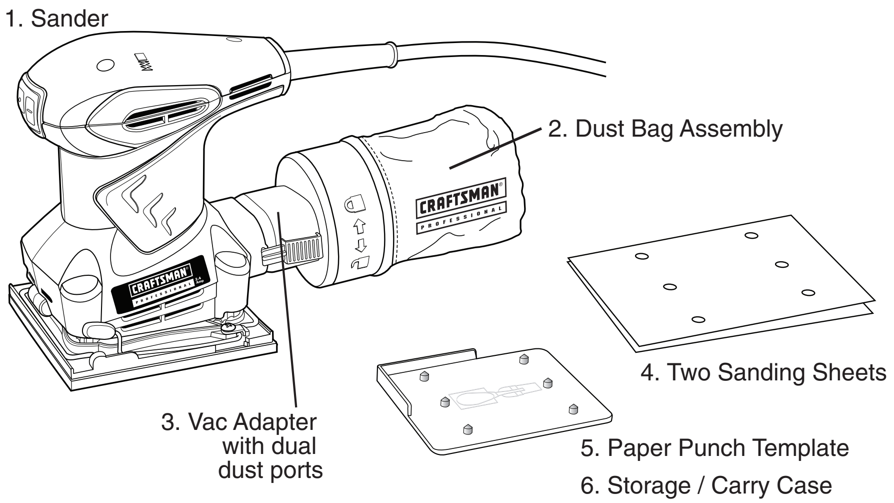
UNPACKING

⚠ **WARNING: This power tool should NEVER be connected to the power source when you are assembling parts, making adjustments, installing or removing sandpaper, cleaning or when it is not in use. Disconnecting the sander will prevent accidental starting, which could cause serious personal injury.**

1. Remove the **sander** from the **storage / carry case** and inspect it carefully to make sure that no breakage or damage has occurred during shipping.
2. Do not discard any of the packing materials until all parts are accounted for.
3. Included with your sander is a **dust bag assembly, with vac adapter.**
4. **2 sheets of sandpaper are included;** one fine grit, and one medium grit.
5. Also included is a **paper punch template**.
6. If any of the parts are damaged or missing (refer to PARTS LIST below), return the sander to your nearest Sears store or Craftsman outlet to have the sander replaced.

⚠ **WARNING: If any parts are missing, DO NOT operate this power tool until the missing parts are replaced. Failure to do so could result in possible serious personal injury.**

PARTS LIST (Fig. 1)



6. Storage / Carry Case
7. Operator’s Manual

DESCRIPTION

KNOW YOUR FINISHING SANDER (Fig. 2)

NOTE: Before attempting to use your sander, familiarize yourself with all of the operating features and safety requirements.

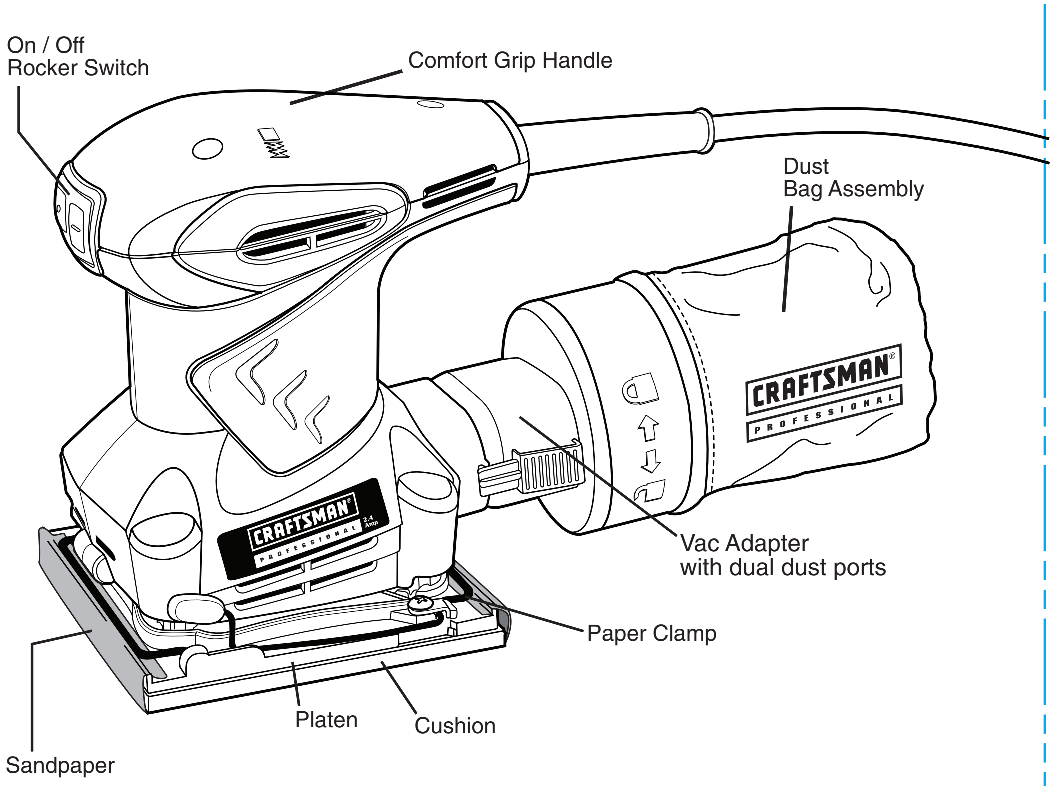
Your Professional 1/4-sheet finishing sander has a precision-built electric motor and it should be connected to a 120-volt, 60-Hz AC ONLY power supply (normal household current). **DO NOT** operate on direct current (DC). The large voltage drop will cause a loss of power and the motor will overheat. If the sander does not operate when plugged into correct 120-volt, 60-Hz AC ONLY outlet, check the power supply. This sander has a 10-ft., 2-wire power cord (no adapter needed).

This Finishing Sander has the following features:

1. **Powerful 2.4 amp permanent magnet motor** provides the torque, power and durability for a variety of continuous sanding applications.
2. **14,000 Orbits per minute (no load speed).** Match correct sandpaper grit for the surface being sanded for either fast material removal or a fine, smooth finish.
3. **Random orbital action** with 1/16-in. orbit diameter helps to provide a swirl free finish
4. **Ergonomically designed Palm Grip Handle with Molded-in Comfort Grip** for maximum balance, control, gripping comfort and reduced operator fatigue.
5. **Precision-tuned counterbalanced system** reduces vibration for smooth operation and less operator fatigue.
6. **On/Off rocker is conveniently located for easy control. Sealed to keep out dust for long life.**
7. **Heavy Duty Wire Form Sandpaper Clamps** provides secure paper retention and quick paper changes.
8. **The Cushion located on the bottom of the sander** accepts both standard non-adhesive sandpaper and pressure sensitive adhesive-backed paper.
9. **Uses 1/4-sheet sandpaper to provide a 16-sq. in. sanding surface**. 2 sandpaper sheets included (Fine and Med. grit).
10. **Paper Punch Template** for accurately making holes in sandpaper for dust collection system.
11. **Built-in Dust Collection System**. Dust bag assembly with dual dust ports collects dust from work surface through holes in platen, cushion and sanding sheets. Use either the dust bag, or attach a $1^{1}/_{4}$ or $2^{1}/_{2}$-inch vac hose and wet / dry vac (sold separately) for dust collection. Helps keep work surface and area clean and extends life of sanding sheets.
12. **High impact-resistant housing** helps protect tool from damage and reduces weight.
13. **Permanently lubricated 100% ball bearings** for smooth operation and long life.
14. **Storage / Carrying Case** for easy carrying and storage of sander and accessories.

DESCRIPTION cont.

Fig 2


On / Off
Rocker Switch
Comfort Grip Handle
Dust
Bag Assembly
CRAFTSMAN
PROFESSIONAL
Vac Adapter
with dual dust ports
Paper Clamp
Sandpaper
Platen
Cushion

PRODUCT SPECIFICATIONS	
No-load Speed	14000 OPM (Orbits per Minute)
Rating	120 Volts, 60 Hz AC
Input	2.4 Amps
Orbit Diameter	1/16-in.
Paper Size	1/4 sheet
Paper Type	Non-Adhesive Sandpaper and Adhesive Sandpaper

ASSEMBLY

⚠ **WARNING: Your sander should NEVER be connected to the power source when you are assembling parts, making adjustments, installing or removing sandpaper, cleaning or when it is not in use. Disconnecting the sander will prevent accidental starting, that could cause serious personal injury.**

INSTALLING THE SANDPAPER (See Figs. 3, 3a, 3b on page 14 and Fig. 4 on page 15)

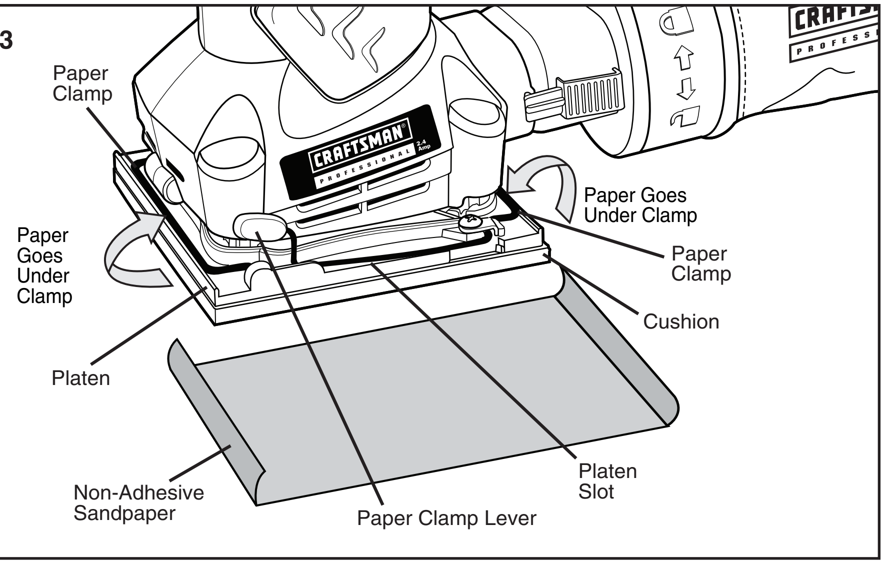
This sander has a cushion that allows you to use either non-adhesive sandpaper or pressure sensitive adhesive-backed sandpaper. The non-adhesive sandpaper clamps to the front and back of the platen and cushion. Adhesive backed sandpaper is applied directly onto the cushion.

This sander has a dust collection system that collects dust from the work surface through holes located in the platen and cushion on the bottom of the sander. A paper punch template is included for accurately punching holes into the 1/4-sheet sandpaper.

NOTE: Holes must be punched into the paper for the dust collection system to work properly. See instructions on page 16 to punch holes.

Installing Non-Adhesive Sandpaper (See Figs. 3, 3a and 3b)

Fig 3


Paper
Clamp
CRAFTSMAN
Paper Goes
Under Clamp
Paper
Goes
Under
Clamp
Paper
Clamp
Cushion
Platen
Non-Adhesive
Sandpaper
Paper Clamp Lever
Platen
Slot

ASSEMBLY cont.

ALWAYS inspect the sandpaper before installing. **DO NOT** use if broken or defective.

1. Unplug the sander.

⚠ **WARNING: Failure to unplug the sander could result in accidental starting causing possible serious personal injury.**

Installing Non-Adhesive Sandpaper (See Figs. 3 , 3a and 3b)

NOTE: Remove dust bag assembly when installing non-adhesive and/or pressure sensitive adhesive-backed paper. ALWAYS remember to reattach the dust bag assembly before beginning sanding operation (see pages 17, Fig. 6).

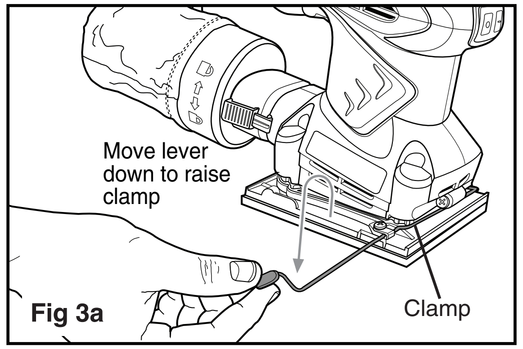


Fig 3a

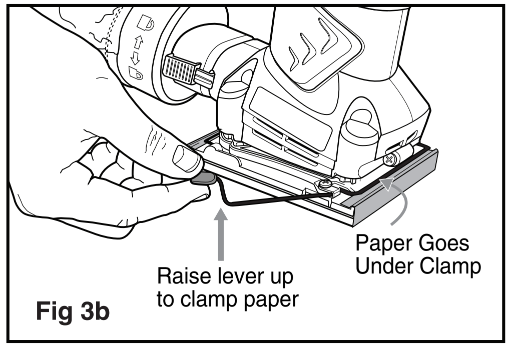


Fig 3b

2. If replacing sandpaper, remove old sandpaper.
3. **Two paper clamp levers** are located on each side of the sander and are locked into a slot on top of the platen (see Fig. 3).
4. Raise these two levers “UP” and disengage them from the slots in the platen. This will release the tension on the paper clamps located at the front and back of the sander that hold the paper in position on the cushion (see Fig. 3a).
5. Remove old paper.
6. Insert front end of a new sheet of paper approximately 1/2-inch under the front paper clamp (see Fig. 3b).
7. Lift up on the lever that controls the front paper clamp and lock it back into the slot on the platen. This will securely clamp the paper to the front of the sander’s cushion.
8. Smooth out the sheet of paper by pressing it tightly against the bottom of the cushion (front to back).
9. Insert back end of paper into back paper clamp, fit sandpaper as tightly as possible, and lift up on paper clamp lever to lock into place. This will securely clamp the paper to the back of the sander’s cushion. The sandpaper should now be positioned tightly against the cushion from front to back, securely clamped in place.

NOTE: ALWAYS be sure that both paper clamp levers are in the locked position on the platen and both paper clamps have the sandpaper securely clamped to the bottom of the cushion before starting sanding operation.

ASSEMBLY cont.

NOTE: Never use the sander without paper attached to the cushion. This will cause damage to the cushion.

Installing Adhesive-Backed Pressure Sensitive Sandpaper (See Fig. 4)

ALWAYS inspect the sandpaper before installing. **DO NOT** use if broken or defective.

1. Unplug the sander.

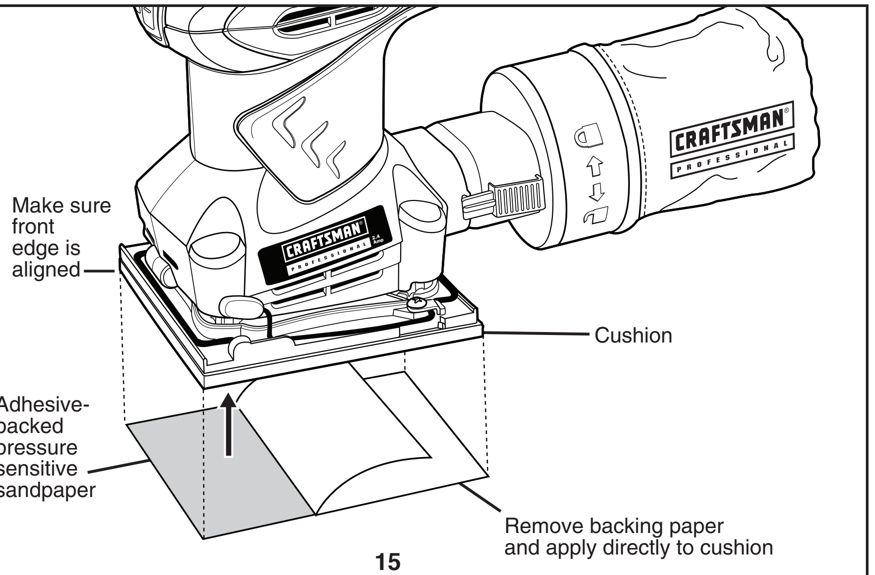
⚠ **WARNING: Failure to unplug the sander could result in accidental starting causing possible serious personal injury.**

2. If replacing adhesive-backed pressure sensitive sandpaper, always remove old sandpaper by peeling it off the cushion.
3. If replacing non-adhesive sandpaper with adhesive-backed paper, release paper clamps by lifting up on each paper clamp lever. Then remove non-adhesive sandpaper.
4. Place paper clamp levers back in locked position on the slots in platen.
5. **CAREFULLY** peel adhesive backing paper from the new 1/4 sheet of adhesive-backed paper.
6. Place sandpaper in position on cushion. **ALWAYS** make sure that the front edge of the sandpaper is carefully aligned with the front edge of the cushion. Then carefully press the sticky side of the sandpaper onto the cushion.

NOTE: The sandpaper MUST be aligned with the front edge of the cushion in order for the sander to properly function when flush sanding.

NOTE: We recommend that you clean the cushion occasionally by brushing it gently with a small brush or wiping it with a soft, damp cloth. Dust build-up on the cushion will cause the sandpaper to not stick properly.

Fig 4


Make sure front edge is aligned
Cushion
Adhesive-backed pressure sensitive sandpaper
Remove backing paper and apply directly to cushion
CRAFTSMAN PROFESSIONAL

ASSEMBLY cont.

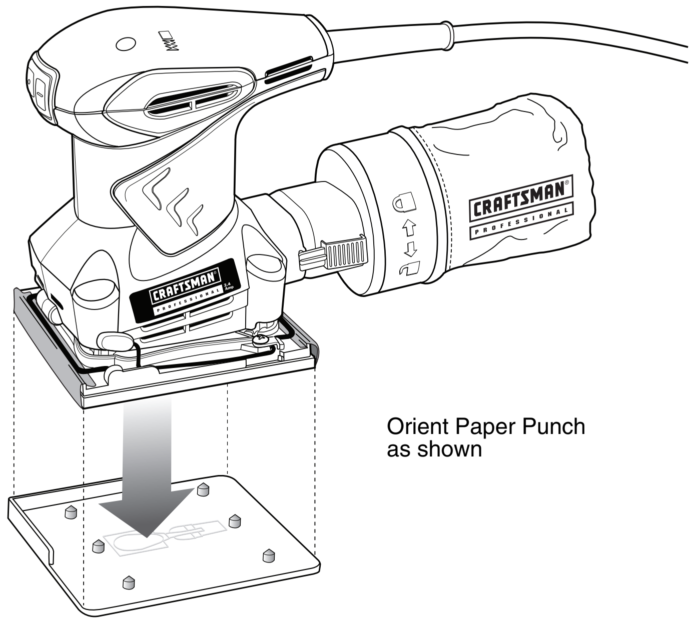
PAPER PUNCH (See Fig. 5)

A paper punch template is included with sander so you can punch properly aligned holes into the sandpaper. This is done after the paper is installed onto the sander.

To punch holes, line up the front and side of the sander over the paper punch template as shown in Fig. 5, then lower the sander onto the template while applying pressure. Make sure the holes are punched all the way through the paper and clear the holes in the sander's cushion and platen.

NOTE: Punching holes properly is a necessary step for the dust collection system to operate properly.

Fig 5


CRAFTSMAN
PROFESSIONAL

Orient Paper Punch as shown

DUST BAG / DUST COLLECTION

⚠ **WARNING: Collected sanding dust from sanding surface coatings (polyurethane, linseed oil, etc.) can self-ignite in sander dust bag or elsewhere and cause fire. To reduce risk, empty dust bag frequently and strictly follow sander manual and coating manufacturer's instructions.**

⚠ **WARNING: When working on metal surfaces, DO NOT use the dust bag or a vacuum cleaner because sparks are generated. Wear safety glasses and a dust mask. Due to the danger of fire, do not use your sander to sand magnesium surfaces. Do not use for wet sanding.**

ASSEMBLY cont.

TO REMOVE AND EMPTY DUST BAG (Fig. 6, 6a and 6b)

1. Unplug the sander.

⚠ **WARNING: Failure to unplug the sander could result in accidental starting causing possible serious personal injury.**

2. Locate (2) tab connectors on either side of vac adapter/dust bag assembly and squeeze. Pull assembly straight back and off of dust exhaust hole (see Fig. 6).
3. Turn dust bag assembly counterclockwise (embossed arrows show unlock and lock rotation) and remove bag from vac adapter (see Fig. 6a, 6b).

Fig 6

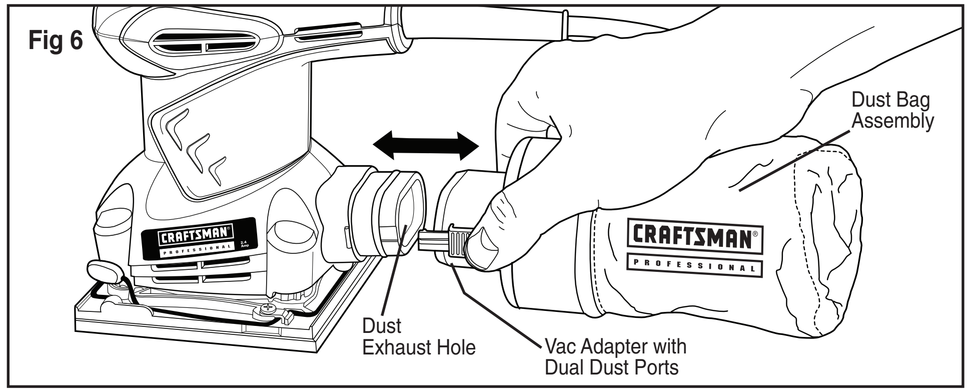

Dust Bag Assembly
CRAFTSMAN
PROFESSIONAL
Dust Exhaust Hole
Vac Adapter with Dual Dust Ports

Fig. 6a

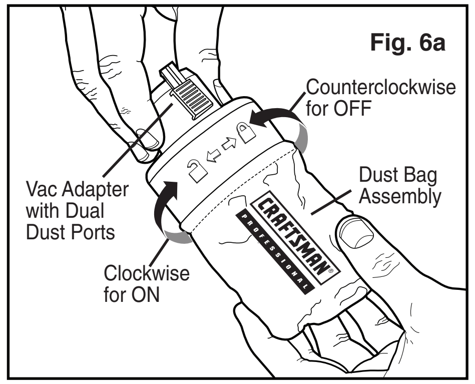
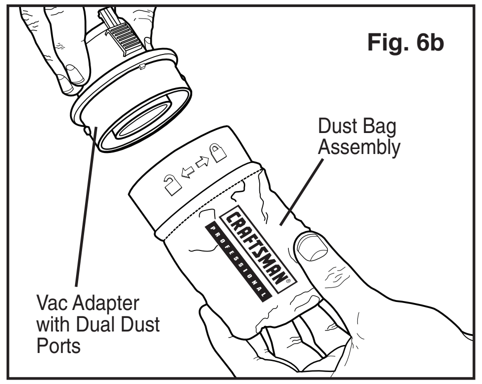

Counterclockwise for OFF
Dust Bag Assembly
Vac Adapter with Dual Dust Ports
Clockwise for ON
CRAFTSMAN

Fig. 6b


Dust Bag Assembly
Vac Adapter with Dual Dust Ports
CRAFTSMAN

4. Empty bag by shaking aggressively until completely empty. Wipe dust and debris from the vac adapter.
5. Reattach the bag assembly back onto the vac adapter, and reattach back onto the sander.

NOTE: Empty dust bag frequently so dust collection system works properly

⚠ **WARNING: Empty dust bag before storage to help prevent possible fire hazard, especially when resin coating or linseed oil finishes have been sanded.**

ASSEMBLY cont.

NOTE: For more efficient operation, we recommend that you empty the dust bag when it is no more than half full. This will allow the air to flow through the bag better. ALWAYS empty and clean the dust bag thoroughly when you've finished sanding and before you store the sander.

ATTACHING VAC HOSE TO THE DUST COLLECTION SYSTEM (See Fig. 7, 7a and 7b)

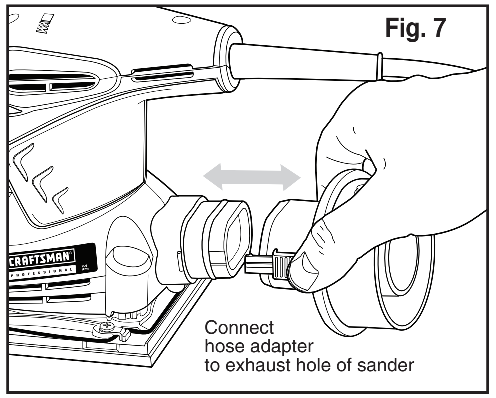
When sanding for extended periods of time, you can easily attach your sander to a vac hose and wet/dry vac (sold separately).

1. Unplug the sander.

⚠ WARNING: Failure to unplug the sander could result in accidental starting causing possible serious personal injury.

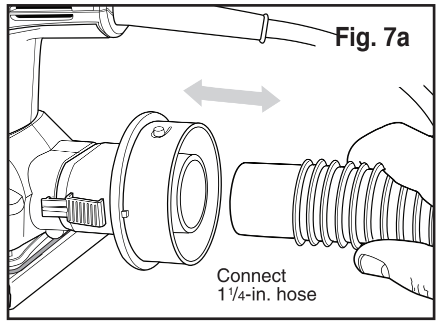
2. Remove dust bag assembly from the vac adapter (see page 17, Fig. 6a and 6b).
3. Connect vac adapter with dual dust ports to dust exhaust hole of sander (see Fig. 7).
4. Attach either a $1\frac{1}{4}$ or $2\frac{1}{2}$-in vac hose onto the vac adapter's dual dust ports (see Fig. 7a and 7b).

Fig. 7



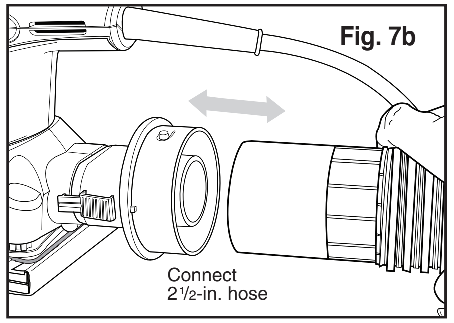
Connect hose adapter to exhaust hole of sander

Fig. 7a



Connect $1\frac{1}{4}$-in. hose

Fig. 7b



Connect $2\frac{1}{2}$-in. hose

5. Connect hose to wet / dry vac. Turn vac on while operating sander.

⚠ WARNING: When sander is not connected to vacuum, always install dust bag back on sander. Failure to do so could cause sanding dust or foreign objects to be thrown into the face or eyes which could result in possible serious injury.

NOTE: A standard $1\frac{1}{4}$-in. vac hose connection fits inside the smaller diameter hole inside the dust exhaust, while a standard $2\frac{1}{2}$-in. vac hose connection fits inside the larger hole of the dust exhaust.

OPERATION

Before attempting to use any tool, be sure to familiarize yourself with all the operating features and safety instructions.

⚠ WARNING: IF ANY PARTS ARE MISSING, DO NOT OPERATE YOUR SANDER UNTIL THE MISSING PARTS ARE REPLACED. FAILURE TO FOLLOW THIS RULE COULD RESULT IN SERIOUS PERSONAL INJURY.

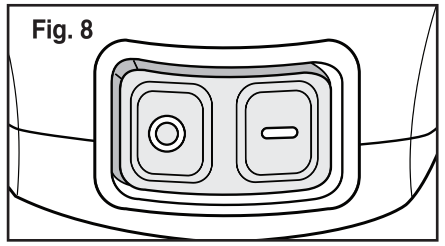
⚠ WARNING: DO NOT let familiarity with your sander make you careless. Remember that a careless fraction of a second is sufficient to cause severe injury.

ON/OFF ROCKER SWITCH (see Fig. 8)

This switch is sealed to help keep out dust for a longer life and is conveniently located near the front of the palm grip handle.

Start the sander by pushing in the part of the switch with the ⊟. Let the motor build to its maximum speed before starting sanding operation. To turn sander off, push side of switch with the O .

Fig. 8



APPLICATIONS

Only use your sander for the applications listed below.

- Sanding wood surfaces with various grits of sandpaper.
- Removing rust from steel surfaces with special sandpaper.

⚠ WARNING: Due to the danger of fire, DO NOT use your sander to sand magnesium surfaces. DO NOT use for wet sanding.

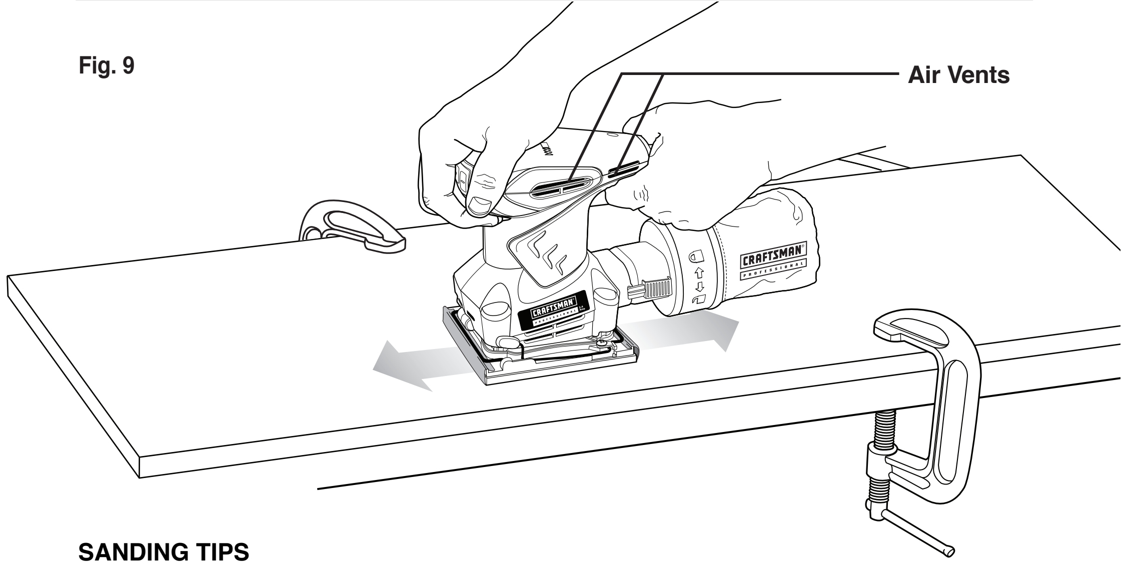
⚠ WARNING: ALWAYS clamp the workpiece. An unsecured workpiece could be thrown towards the operator, causing serious injury.

USING YOUR SANDER (See Fig. 9, on page 20)

1. **ALWAYS** clamp and secure the workpiece to prevent it from moving under sander.
2. **ALWAYS** hold your sander in front and away from you, keeping it clear of the workpiece.
3. Start the sander and let the motor build to its maximum speed.
4. Gradually lower the sander onto the workpiece with a slight forward movement.
5. Move the sander slowly, guiding it in a forward and backward motion.
6. **ALWAYS** remove the sander from the workpiece before turning it off.

⚠ CAUTION: When gripping the sander during use, ALWAYS be careful not to cover the air vents with your hands (see Fig. 9).

Fig. 9



SANDING TIPS

1. **DO NOT force the sander.** The weight of the sander supplies adequate pressure on the workpiece. Let the sander and the sandpaper's grit do the work.
    - Applying additional pressure will only slow down the motor, wear the sandpaper out faster and reduce the sander's orbital speed.
    - Excessive pressure will overload the motor and cause possible damage to the sander from the motor overheating.
    - Excessive pressure will also result in a poor quality finish.
2. Any existing finish or resin on wood may soften from the heat of the friction and cause the sandpaper to load-up faster.
3. Inspect sandpaper frequently and change paper when grit is worn and not able to perform properly.
4. **DO NOT** sand in one spot for too long a time because the sander's rapid action may remove too much material and make the surface uneven.

SELECTING THE RIGHT SANDPAPER

Selecting the correct grit and type of sandpaper is an extremely important decision that will allow you to achieve the best quality sanding finish.

1. Aluminum oxide, silicon carbide and other synthetic abrasives are best for power sanding.
2. Natural abrasives such as flint and garnet are too soft for economical use in power sanding.
3. Coarse grit will remove the most material and finer grit will give you the best finish in all sanding operations.

SELECTING THE RIGHT SANDPAPER cont.

4. The condition of the surface to be sanded will determine which grit will do the job.
5. **If the surface is rough:**
    - Start with a coarse grit and sand until the surface is uniform.
    - Then use medium to remove any scratches left by the coarse grit.
    - Then use a finer grit for finishing the surface.

NOTE: ALWAYS continue sanding with each grit until the surface is uniform.

NOTE: DO NOT use the sander without sandpaper. This will damage the cushion.

⚠ WARNING: DO NOT wear loose clothing or jewelry when operating sander. They could get caught in moving parts, causing serious injury. Keep head away from sander and sanding area. Hair could be drawn into sander, causing serious injury.

⚠ WARNING:Empty dust bag before storage to help prevent possible fire hazard, especially when resin coating or linseed oil finishes have been sanded.

NOTE: Empty dust bag frequently when sanding so dust collection system works properly.

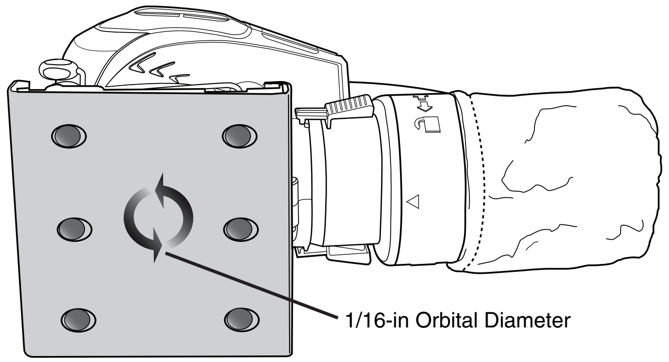
ORBITAL MOTION (Fig. 10)

As shown in Figure 10, the orbit of the sander is 1/16-in in diameter so the sandpaper moves in tiny circles at very high speed, allowing the sander to move easily.

This orbital action duplicates a "hand sanding" motion for more aggressive sanding as you push the sander forward. This powerful orbital action is ideal for heavy-duty sanding applications, such as:

1. Removing old finishes
2. Smoothing rough wood
3. Sanding stock down to required dimensions
4. Finishing surfaces that are to be painted

Fig. 10



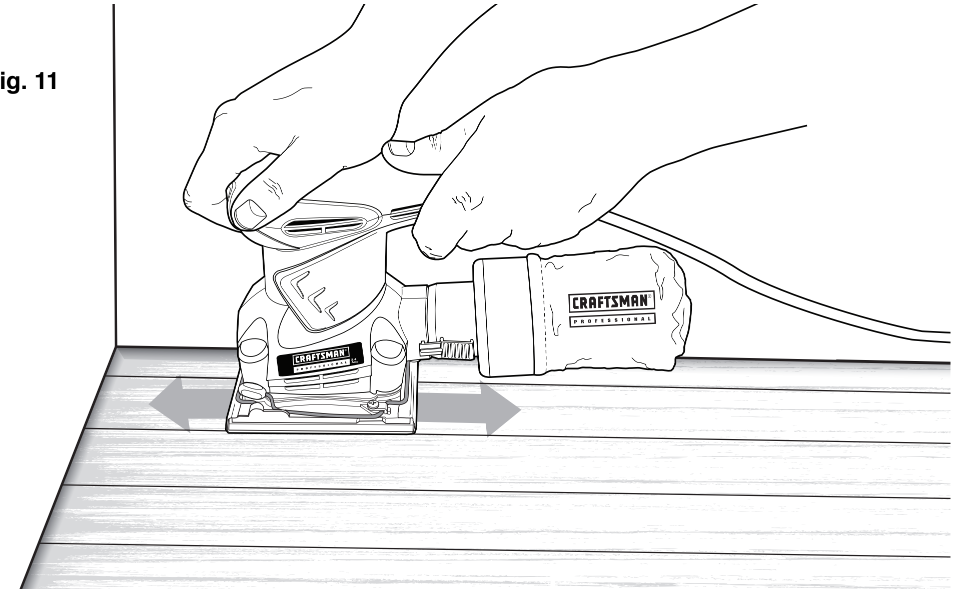
OPERATION cont.

FLUSH SANDING (See Fig. 11)

Your sander will allow you to flush sand corners.
You can use the front and sides of your sander for flush sanding. **DO NOT** use the rear of the sander for flush sanding.

ALWAYS remove the sander from the workpiece before turning it off.

Fig. 11



REMOVE PRESSURE-SENSITIVE SANDPAPER BEFORE STORAGE

DO NOT store your sander with pressure-sensitive sandpaper still attached. The heat generated by sanding causes the pressure-sensitive adhesive to flow and form a tight bond between the cushion and the sandpaper.

ALWAYS remove the sandpaper soon after you have finished sanding to avoid adhesive set up. When sandpaper is left on the cushion for an extended period of time after use, the adhesive will set up and make the sandpaper difficult to remove.

The sandpaper may tear when removing it. If this happens it makes it difficult to clean the cushion for the next piece of sandpaper.

NOTE: If you do forget to remove the sandpaper after sanding, run your sander for a few minutes to soften the adhesive backing before you try to remove the sandpaper.

MAINTENANCE

⚠ WARNING: To ensure safety and reliability, repairs, maintenance and adjustments MUST be performed by a qualified service technician at a Sears Service Center.

⚠ WARNING: For your safety, ALWAYS turn off switch and unplug sander from the power source before performing any maintenance or cleaning.

It has been found that electric tools are subject to accelerated wear and possible premature failure when they are used to work on fiber glass boats and sports cars, wallboard, spackling compounds or plaster. The chips and grindings from these materials are highly abrasive to electrical tool parts, such as bearings, brushes, commutators, etc. Consequently, it is not recommended that this tool be used for extended work on any fiberglass material, wallboard, spackling compound or plaster. During any use on these materials, it is extremely important that the tool is cleaned frequently by blowing with an air jet.

⚠ WARNING: Always wear safety goggles or safety glasses with side shields during power tool operations, or when blowing dust. If operation is dusty, also wear a dust mask.

ROUTINE MAINTENANCE

⚠ WARNING: DO NOT at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc. come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic, which may result in serious personal injury.

Periodic maintenance allows for long life and trouble-free operation. A cleaning and maintenance schedule should be maintained. As a common preventive maintenance practice, follow these recommended steps:

⚠ WARNING: For your safety, ALWAYS turn off switch and unplug sander from the power source before performing any maintenance or cleaning.

1. When work has been completed, clean the tool to allow smooth functioning of the tool over time. Clean the tool with compressed air.
2. Use clean damp cloths to wipe the tool.
3. Keep the motor air openings free from oil, grease and sawdust or woodchips, and store tool in a dry place.

LUBRICATION

Your Craftsman® Professional Pad Sander has been properly lubricated and is ready to use. No further lubrication is needed under normal operating conditions. All bearings in the sander are lubricated for the life of the tool.

MAINTENANCE cont.

BRUSH REPLACEMENT (see Fig. 12, 12a, 12b and 12c)

1. Unplug the sander.

⚠ **WARNING: Failure to unplug the sander could result in accidental starting causing possible serious personal injury.**

2. Remove (3) screws from top cover of sander and remove top cover (see Fig. 12).
3. Locate the (2) Carbon Brush / Brush Holder Assemblies (see Fig. 11a). They are connected to red wire lead terminals and are in position on each side of the armature.
4. Carefully lift these (2) assemblies (see Fig. 12a and 11b) out of their positions **(NOTE: Remember how they are positioned so that you can put them back in position correctly.)**
5. Check the ends of the carbon brushes (see Fig. 12b) for wear. If either brush has less than 1/4-in. length of carbon remaining, replace both. **DO NOT REPLACE ONE SIDE WITHOUT REPLACING THE OTHER.**
6. To replace assemblies, disconnect the red wire lead terminals from the assemblies (see Fig. 12c), attach new assemblies to the lead terminals and place the assemblies back into their original positions next to the armature. Make sure the curvature of the end of the brushes matches the curvature of the armature and that the brushes move freely in brush holder assemblies.
7. Reassemble the top cap with the (3) screws and do not overtighten.

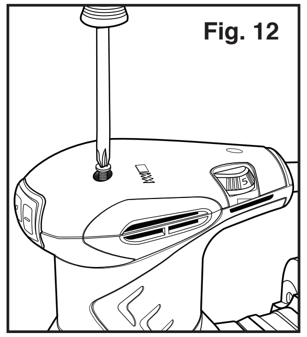


Fig. 12

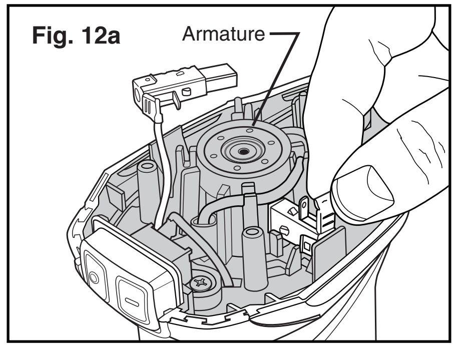


Fig. 12a

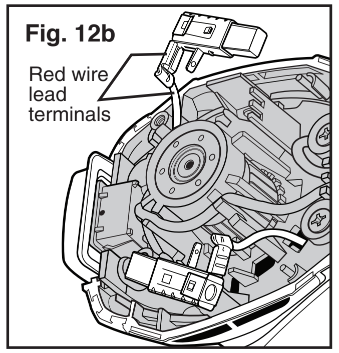


Fig. 12b

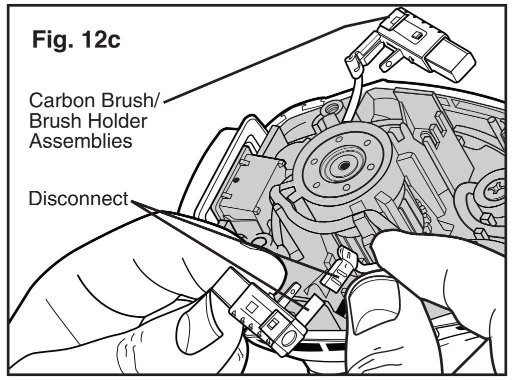


Fig. 12c

ACCESSORIES

⚠ **WARNING: The use of attachments or accessories that are not recommended for this tool might be dangerous and could result in serious injury.**

Sears and other Craftsman® outlets offer a selection of Craftsman Professional Random Orbit Sander accessories designed for all your sanding applications.

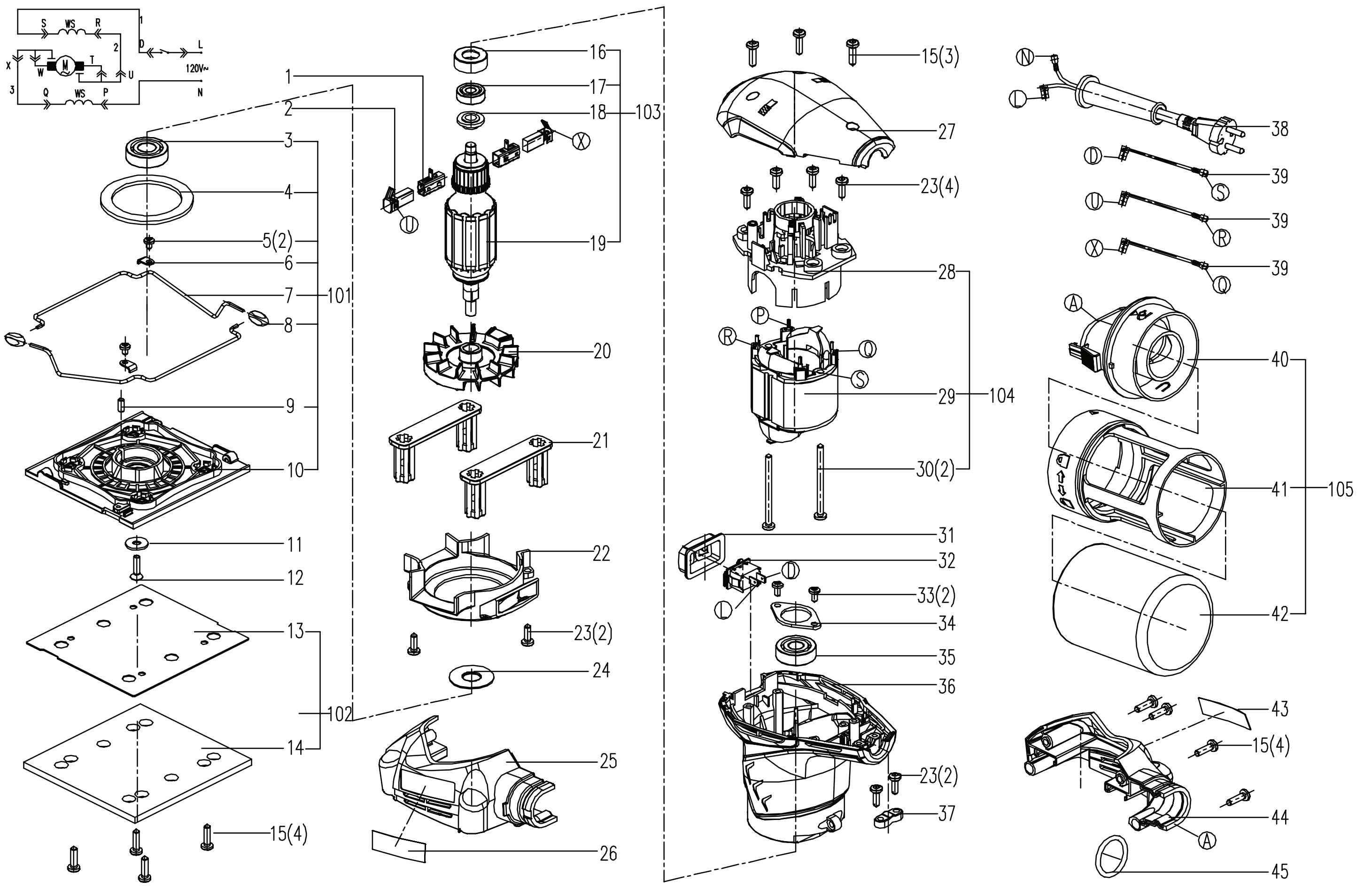
1/4 Sheet Sandpaper in Very Fine, Fine, Medium and Coarse Grit available in non-adhesive and adhesive backed.

Visit your local Sears store or other Craftsman outlets or shop sears.com/craftsman for all of the accessories for your random orbital sander.

PARTS LIST

1/4 Sheet Pad Sander
MODEL NUMBER 172.27670

The model number will be found on the nameplate of the Sheet Pad Sander.
Always mention the model number when requesting parts and service for your tool.



PARTS LIST cont.

1/4 Sheet Pad Sander
MODEL NUMBER 172.27670

The model number will be found on the nameplate of the Sheet Pad Sander.
Always mention the model number when requesting parts and service for your tool.

Item No.	Parts No.	Part Description	Qty.
1	200T0040159000A-00	Brush holder ssembly	2
2	200T0030119000A-00	Carbon brush	2
101	2PPS07Q3000000A-00	Soleplate	1
3	200W8000037000A-00	Ball bearing 6001	1
4	2PPS02A0301000A-00	Airproof ring	1
5	200W4000004000A-00	Screw M3.5x6	2
6	2PPS02A0304000A-00	Compression bloc	2
7	2PPS02A0311000A-00	Clamp	2
8	2PPS02A0312000A-00	Wire cap	2
9	200T0090003000A-00	Rubber pin	1
10	2PPS02A0302000A-00	Base plate	1
11	2PPS04A0009000A-00	Washer	1
12	200W3000059000A-00	Screw M4x16	1
102	2PPS02A7000000A-00	Foamy Board Assembly	1
13	2PPS02B0305000A-00	aluminium plate	1
14	2PPS02A0303000A-00	Foamy plate	1
15	200W4000034000A-00	Screw M4.2x16	11
103	2PPS07Q2000000A-00	Rotor	1
16	200T0070003000A-00	Bearing sleeve	1
17	200W8000006000A-00	Ball bearing 607-2z	1
18	200T0020005000A-00	Dust proof ring	1
19	20TA9520072000A-00	Armature	1
20	2PPS07Q0007000A-00	Fan	1
21	2PPS04A0005000A-00	Oscillating column	2
22	2PPS07Q0005000A-00	Wind baffle	1
23	200W4000032000A-00	Screw M4.2x13	8
24	2PPS02A0221000A-00	Dust proof ring	1
25	2PPS07Q0003000A-00	Left housing	1
26	2PPS07Q0001000A-00	Brand label	1
27	2PPS07Q0006000A-00	Top cover	1
104	2PPS07Q1000000A-00	Stator asm	1
28	2PES04Q3001000A-00	Bracket	1
29	20TA9500081000A-00	Stator	1
30	200W4000052000A-00	Screw M4.2x55	2
31	2PES02A0002000A-00	Switch cover	1
32	200W0020265000A-00	Switch	1
33	200W4000005000A-00	Screw M3.5x8	2
34	2PES04Q6001000A-00	Press plate	1
35	200W8500003000A-00	Ball bearing 6000	1
36	2PES04Q0003000A-00	Housing	1
37	200T0200005000A-00	Cord clamp	1
38	2PES04Q7000000A-00	Power cord	1
39	200T0280179000A-00	Inner wire	3
105	2PES04Q5000000A-00	Dust collector bag	1
40	2PES04Q5001000A-00	Dust port	1
41	2PES04Q5102000A-00	Dust bag body	1
42	2PES04Q5100000A-00	Dust bag	1
43	2PPS07Q0002000A-00	Rated label	1
44	2PPS07Q0004000A-00	Right housing	1
45	200T0080024000AA-00	O ring 3x34	1

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